

Notice of Allowability

Application No.

09/339,506

Examiner

Andrew Hwa S. Lee

Applicant(s)

HANSEN, MATTHEW E.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/16/05.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date 11/19/02.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/2/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Andrew Hwa Lee
Primary Examiner
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DETAILED ACTION

Remarks regarding Double Patenting

Claims 1-26 of copending Application No. 10/786,361 and claims 40-57 and 61-64 of copending Application No. 09/907,902 still stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

With regards to claims 1-7, a prior art of record shows the imaging of a single periodic feature in a plane oblique to reticle plane but the prior art of record fails to show or to suggest a method of characterizing an optical system comprising of all the steps as presently claimed wherein the image of a reticle has a plurality of periodic pattern features with the combination the detected image plane being oblique to the reticle plane. Claims 2-7 are allowable by virtue of their dependence on claim 1.

With regards to claims 8-10, a prior art shows detecting the image of a plurality of periodic pattern features on a reticle simultaneously at different locations in the same plane, but the prior art of record fails to show or to suggest a method of characterizing an optical system having an optical axis comprising of all the steps as presently claimed wherein the image of a plurality of periodic pattern features on a reticle is detected simultaneously at different locations and in a direction coaxial with the optical axis. Claims 9 and 10 are allowable by virtue of their dependence on claim 8.

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With regards to claims 11-26, the prior art of record fails to show or to suggest a method of extracting optical parameter from an optical system having an optical axis comprising of all the steps as presently claimed wherein the object plane extends over a range of depths through the object space. A prior art of record shows the object plane shifting for subsequent measurements over a range of depths, but does not show the object plane extending over the said range. Claims 12-26 are allowable by virtue of their dependence on claim 11.

With regards to claims 27 and 28, a prior art shows an image of a reticle having a plurality of periodic pattern features within a single plane and not a volume of image space and means for detecting the image at different locations wherein the image plane is at single depth of focus, but the prior art of record fails to show or to suggest an apparatus for characterizing an optical system comprising of all the elements as presently claimed wherein the reticle has a plurality of periodic features, the means for detecting the image at different locations, wherein said detecting means comprises different depths of focus within the volume of image space. Claim 28 is allowable by virtue of its dependence on claim 27.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa S. Lee whose telephone number is 571-272-2419. The examiner can normally be reached on Tue-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Andrew Hwa Lee
Primary Examiner
Art Unit 2877